

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/058,149 Confirmation No. : 4052  
First Named Inventor : Toshihiro TAKAGI  
Filed : January 29, 2002  
TC/A.U. : 2623  
Examiner : Justin E. Shepard

Docket No. : 010482.50895  
Customer No. : 23911

Title : Channel Selection Device for Use in Digital/analog  
Broadcasting Receiver and Digital/analog Broadcasting  
Receiver Equipped with The Same

**REPLY**

**Mail Stop AF**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated July 27, 2007, reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-3 and 5-8 remain pending.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. § 103(a) as being obvious in view of the combination of U.S. Patent No. 5,982,411 to Eyer et al. ("Eyer") and U.S. Patent No. 6,775,843 to McDermott ("McDermott"). This ground of rejection is respectfully traversed.

One of the four factual inquires for determining obviousness under the Supreme Court's ruling in *Graham v. John Deere*<sup>1</sup> requires ascertaining the

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<sup>1</sup> 383 U.S. 1 (1966).

differences between the prior art and the claims in issue. This factual inquiry involves consideration of the claimed invention as a whole, and the prior art in its entirety<sup>2</sup>. As set forth in detail below, the results of this factual inquiry would be that Applicants' claims are novel and non-obvious in view of the combination of Eyer and McDermott.

Applicants' claim 1 recites a channel selection device that, depending upon various conditions, can employ one of four techniques when trying to select a channel based on a channel upward/downward changing instruction. Neither Eyer nor McDermott discloses such a device, and accordingly the rejection of Applicants' claim 1 is based upon a combination of Eyer and McDermott.

This combination, however, when the claim is considered as a whole and Eyer and McDermott considered in their entirety, does not render Applicants' claimed channel selection device obvious. Specifically, the combination does not disclose or suggest that a first technique is employed when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when: (1) there is no channel information in the memory; or (2) there is channel information for some physical channels in the memory and a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range.

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<sup>2</sup> M.P.E.P. § 2141.02.

The first technique involves shifting the frequency to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map.

Eyer is directed to a technique for grouping channels such that a "television viewer can easily navigate programs which are grouped...by depressing the 'channel up' or 'channel down' buttons on a hand-held remote control."<sup>3</sup> Eyer, however, does not mention what occurs when there is no channel information in the memory. Nor does Eyer disclose what occurs when there is channel information for some physical channels in the memory and a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range. As such, Eyer cannot disclose or suggest the first and third techniques recited in Applicants' claim 1.

Recognizing this deficiency of Eyer, the Office Action relies upon McDermott as disclosing the first and third techniques recited in Applicants' claim 1. McDermott discloses a technique for digital television channel mapping in which an auto programming module 300 generates first and second mapping tables 185, and a mapping module that operates using these mapping tables<sup>4</sup>.

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<sup>3</sup> Abstract.

<sup>4</sup> Col. 5, lines 1-3, and Figures 3A, 3B and 6.

The body of the rejection of Applicants' claim 1 cites column 6, lines 21-31 of McDermott as disclosing performing the first technique when either of these conditions are satisfied. This section of McDermott discloses mapping a major channel number to a physical channel using the first mapping table and tuning to the physical channel to collect the VCT. The first mapping table is stored in the memory of the tuner, and accordingly, there is nothing in this section that discloses or suggests performing the first technique when: (1) there is no channel information in the memory; or (2) there is channel information for some physical channels in the memory and a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range.

The Response to Arguments section of the final Office Action relies upon the auto programming feature of Figures 3A and 3B of McDermott as disclosing the first and third techniques recited in Applicants' claim 1. This auto programming feature "is executed during auto programming mode."<sup>5</sup> McDermott does not disclose how the auto programming mode is invoked or what initiates the processes of Figures 3A and 3B. Accordingly, even if McDermott disclosed that the auto programming mode performs the first and third techniques, in response to the conditions of claim 1, McDermott does not disclose or suggest

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<sup>5</sup> Col. 5, lines 6-7.

that these techniques are performed “when trying to select a channel based on a channel upward/downward changing instruction received from the input device”, as recited in Applicants’ claim 1.

Furthermore, McDermott does not disclose or suggest that the auto programming mode operates when “a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range”, which is one of the conditions for invoking the third technique recited in Applicants’ claim 1.

Additionally, when Eyer and McDermott are considered in their entirety, it would not have been obvious to invoke the auto programming mode of McDermott in response to the depression of channel up or channel down buttons on a hand-held remote disclosed by Eyer. Specifically, there is no indication in Eyer that when attempting to navigate groups of programs using the channel up or channel down buttons an auto programming mode should be entered, such as the auto programming mode of McDermott relied upon to reject Applicants’ claim 1. Nor is there any indication in McDermott that the auto programming mode could be used when a user selects one channel of a group of channels.

In fact, one of ordinary skill in the art would not have been motivated to incorporate of the auto programming mode of McDermott into the selection of a channel from a group of channels of Eyer. Specifically, Eyer discloses that

it would be desirable to provide a system which allows a *viewer to easily navigate programs* which are grouped according to a common service provider or other grouping criteria by depressing the "channel up" or "channel down" buttons on a hand-held remote control or the like.<sup>6</sup>

As clearly illustrated in Figures 3A and 3B of McDermott, the auto programming mode is designed to tune each physical channel until there are no more physical channels, i.e., "No" path out of decision block 342. The system of Eyer is designed to group a large number of channels, and in some cases channels from cable, terrestrial and satellite broadcasts. Therefore, if Eyer and McDermott were combined in the manner described in the Office Action, this combination would require the system of Eyer to perform the time consuming process of tuning to a large number of physical channels in order to perform the first and third techniques of Applicants' claim 1. This time consuming process would not only frustrate a viewer, but would not allow a viewer "to easily navigate programs", one of the stated goals of Eyer.

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<sup>6</sup> Col. 2, lines 40-43 (emphasis added).

The Office Action supports the combination of Eyer and McDermott by reasoning that one of ordinary skill in the art would have been motivated to “allow for the broadcaster to dynamically change the groupings as the needs of users changed.” However, even if one of ordinary skill in the art had this motivation, this motivation would not overcome the great inconvenience posed by incorporating McDermott’s time consuming auto programming mode into the channel selection technique of Eyer. Because the combination of Eyer and McDermott in the manner described in the Office Action would have resulted in a very undesirable system, and the motivation provided by the Office Action does not overcome this issue, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine Eyer and McDermott in the manner described in the Office Action. Therefore, the only reason to combine Eyer and McDermott must be based upon improper hindsight in which Applicants’ claims are used as a guide to piece together various, disconnected, disclosures. This hindsight reconstruction cannot be the basis of an obviousness rejection under 35 U.S.C. § 103.

Claims 2 and 3 recite similar elements to those discussed above with regard to claim 1, and are patentably distinguishable over the combination of Eyer and McDermott for similar reasons. Claim 5 is patentably distinguishable at least by virtue of its dependency from claim 1.

The combination of Eyer and McDermott does not render Applicants' claim 6 obvious because the combination does not disclose or suggest that a second procedure is employed when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is no channel data of a main channel to which the current main channel is to be changed and no channel data of the sub-channel. The second procedure involves shifting the reception frequency upward/downward to thereby search for other physical channels and then refers to the VCT of a detected physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number.

Applicants' addressed this rejection in the Reply filed on April 26, 2007, and the final Office Action does not address these arguments. Therefore, for the reasons previously presented, in addition to similar reasons to those discussed above with regard to claim 1, the combination of Eyer and McDermott does not render claim 6 obvious. Claim 7 recites similar elements to those discussed above with regard to claim 6, and is patentably distinguishable for similar reasons. Claim 8 is patentably distinguishable at least by virtue of its dependency from claim 6.




For at least those reasons set forth above, it is respectfully requested that the rejection of claims 1-3 and 5-8 as being obvious in view of the combination of Eyer and McDermott be withdrawn.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #010482.50895).

Respectfully submitted,

October 11, 2007

  
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